

AMENDMENTS TO THE SPECIFICATION

Please amend the specification beginning at page 6, line 25 as follows:

A shown in FIG. 3, the bipolar battery 1 is comprised of a bipolar electrode 30, which is constructed of a positive electrode active material layer 32, a current collector 31 and a negative electrode active material layer 33 which are laminated in such an order, and a polymer solid electrolyte layer (which may be merely referred to as a "solid electrolyte layer" or the like) 40 interposed between the positive electrode active material layer 32 of one of a pair of the bipolar electrodes 30, 30 and the negative electrode active substantial layer 33 of the other one of the electrode pair. Fundamentally, each unit cell U is comprised of a pair of bipolar electrodes 30, 30 that are constructed of the current collector 31 and the positive electrode active material layer 32 of one of the bipolar electrode pair, the current collector 31 and the negative electrode active material layer 33 of the other one of the bipolar electrode pair, and the solid electrolyte layer 40 interposed between such a positive electrode active material layer 32 and the negative electrode active material layer 33.

Please amend the specification beginning at page 11, line 24 as follows:

Polymer solid electrolyte to be contained may not be limited to particular polymer materials provided that polymer has an ion conductivity. Polymer that has the ion conductivity may include polyethylene oxide (PEO), polypropylene oxide (PPO) and copolymer of these materials. Such polyalkylene oxide polymer is able to dissolve lithium salts such as  $\text{LiBF}_4$ ,  ~~$\text{LiPF}_6$~~   $\text{LiPF}_6$ ,  $\text{LiN}(\text{SO}_2\text{CF}_3)_2$  and  $\text{LiN}(\text{SO}_2\text{C}_2\text{F}_5)_2$ . Also, formation of a bridge structure provides an excellent mechanical strength. Although such polymer solid electrolyte may be contained in at

least one of the positive electrode active material layer and the negative electrode active material layer, in order for the bipolar battery to have a further improved battery characteristic, both the positive electrode active material layer and the negative electrode active material layer may preferably contain polymer solid electrolyte.

Please amend the specification beginning at page 13, line 21 as follows:

Further, lithium salts may be contained in the polymer solid electrolyte layer 40 in order to enhance the ion conductivity. Lithium salts may include  $\text{LiBF}_4$ ,  $\text{LiPF}_6$ ,  $\text{LiN}(\text{SO}_2\text{CF}_3)_2$ ,  $\text{LiN}(\text{SO}_2\text{C}_2\text{F}_5)_2$  or a mixture of these compounds. However, lithium salts are not limited to these compounds. Polyalkylene oxide polymer is able to dissolve lithium salts such as  $\text{LiBF}_4$ ,  $\text{LiPF}_6$ ,  $\text{LiN}(\text{SO}_2\text{CF}_3)_2$  and  $\text{LiN}(\text{SO}_2\text{C}_2\text{F}_5)_2$ . Also, formation of a bridge structure provides an excellent mechanical strength.

Please amend the specification beginning at page 22, line 19 as follows:

Also, under a condition in which all the unit cells 55 are bypassed, electric current flows through the current bypass circuits 50 that are connected in series from a battery charger, with electric current being limited by the resistors 54 connected to the Zener diodes 52 in series. Consequently, the resistors 54 have functions to suppress an increase in electric current such that, when electric current bypasses the current bypass circuits 50, excessive electric current does not flow through the current bypass circuits 50. A resistance of the resistor 54 is selected to a value to preclude excessively large electric current ~~not to flow from~~ flowing through the current bypass circuit 50.